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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,239	11/06/2003	Ertugrul Berkcan	RD-26,491-6	7949

6147 7590 04/21/2006

GENERAL ELECTRIC COMPANY  
GLOBAL RESEARCH  
PATENT DOCKET RM. BLDG. K1-4A59  
NISKAYUNA, NY 12309

EXAMINER

NGUYEN, TUYEN T

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/702,239	<b>Applicant(s)</b> BERKCAN ET AL.	
	<b>Examiner</b> TUYEN T. NGUYEN	<b>Art Unit</b> 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 30-44 is/are pending in the application.  
4a) Of the above claim(s) 31-33 and 40-44 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 30 and 34-39 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Charles [US 5,165,162] in view of Relis [US 2,542,057].

Charles discloses a toroidal inductor [figure 4] comprising:

- a toroidal core structure including at least one gap [16] filled with bonding material;
- a bobbin/casing/former [42, 44] disposed over the toroidal core structure; and
- at least one winding [14] wound about the bobbin/casing/former.

Charles discloses the instant claimed invention except for the specific material for the core structure.

Relis discloses a toroidal induction device including a non-magnetic core [33, 35] and at least one winding [32, 34] wound about the non-magnetic core.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use non-magnetic or non-ferromagnetic material for the core structure of Charles, as suggested by Relis, for the purpose of controlling the magnetic flux.

Claims 34-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Charles in view of Relis as applied to claim 30 above, and further in view of McLyman [US 4,975,672].

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Charles in view of Relis discloses the instant claimed invention except for the specific coating material.

McLyman discloses a toroidal core [11] having outside surface coated with a polymer layer and a winding [43] wound about the coated toroidal core.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a polymer coating layer on the toroidal core of Charles, as modified, as suggested by McLyman, for the purpose of stabilizing the core.

Regarding claims 36-38, the specific polymer for the coating layer would have been an obvious design consideration based on the intended applications/environments.

Regarding claim 39, Charles in view of Relis discloses the instant claimed invention except for the plurality of grooves.

McLyman discloses a plurality of grooves on the alignment disc.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include grooves in the casing of Charles, as modified, as suggested by McLyman, for the purpose of providing alignment and uniform winding spacing.

### ***Response to Arguments***

Applicant's arguments filed 02/06/2006 have been fully considered but they are not persuasive.

Applicant argues that:

[1] Charles do not disclose the "longitudinal assembly being bent to form a generally toroidal assembly"; and

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[2] Charles do not disclose the longitudinal assembly “having a first assembly end bonded to a second assembly end.”

The examiner disagrees.

Regarding [1], the method step(s) is/are not being given any patentable weight in the apparatus claim.

Regarding [2], when the first assembly end bonded to the second assembly end, the final product of the present invention will be a toroidal assembly having gap [formed by the bonded material].

Charles discloses a toroidal core/coil assembly having gap filled with bonding material.

#### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUYEN T. NGUYEN whose telephone number is 571-272-1996. The examiner can normally be reached on M-F 8:30-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ELVIN ENAD can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTN *TTN*

*Tuyen Nguyen*